

## CLAIMS

What is claimed is:

1. A carton having a pour spout, comprising a one piece paperboard sheet folded and glued so as to define a pour spout in inner and outer walls of the carton, the pour spout having a spout outer layer hinged to the outer wall along a first fold line and a spout inner layer hinged to the inner wall along a second fold line so that the pour spout can pivot about the fold lines between an open position in which contents in the carton can be expelled through the pour spout and a closed position in which the spout outer layer and the outer wall are essentially coplanar and the spout inner layer and the inner wall abut in edgewise relation at a location between the fold lines and an end of the spout outer layer opposite the fold lines.  
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2. A carton having a pour spout, comprising a one piece paperboard sheet folded and glued so as to define the pour spout and the carton having top, bottom and one or more side walls having clay coated exterior surfaces and interior surfaces coated with a vapor impermeable polymer so as to exhibit a moisture vapor transmission rate through the walls of about 1.0 or less, wherein the pour spout is movable between a closed position and an open position in which contents in the carton can be expelled through the pour spout and wherein the carton and the pour spout form a labyrinth seal in which an inner edge of the spout abuts the carton at a location between a spout fold line and an outer edge of the spout opposite the fold line.  
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3. A paperboard carton, comprising:
    - a paperboard sheet folded and glued to define bottom, top and one or more side walls having interior and exterior surfaces and defining a cavity for containing carton contents;
- 5        a pour spout cut into one of the walls and movable from a closed position to an open position in which the carton contents can be expelled through the pour spout; and
  - a vapor impermeable coating applied to the paperboard sheet at the interior surfaces of the walls.
4.        The carton of claim 3, further comprising a clay coating applied to the paperboard sheet at the exterior surfaces of the walls.
5.        The carton of claim 3, wherein the walls exhibit a moisture vapor transmission rate of about 1.0 or less.
6.        The carton of claim 3, wherein the vapor impermeable coating is a water-dispersible polymer.
8.        The carton of claim 3, wherein the carton contents are food and wherein the vapor impermeable coating comes in direct contact with the food.
9.        The carton of claim 3, wherein the pour spout is at one of the side walls.
10.      The carton of claim 3, wherein the pour spout is paperboard.
11.      The carton of claim 10, wherein the pour spout is formed from the paperboard sheet.

12. The carton of claim 11, wherein the pour spout is comprised of a spout outer layer connected to an outer panel of the paperboard sheet by a first fold line and a spout inner layer connected to an inner panel of the paperboard sheet by a second fold line in substantial registration with the first fold line so  
5 that the pour spout can pivot about the fold lines between the open and closed positions.

13. The carton of claim 12, wherein at least a portion of the spout inner layer and the inner panel are substantially coplanar and at least a portion of the spout outer layer and the outer panel are substantially coplanar when the spout is in a closed position.

14. The carton of claim 13, wherein the paperboard sheet and the pour spout form a labyrinth seal in which an edge of the spout inner layer abuts an edge of the inner panel at a location between the first fold line and an edge of the spout outer layer opposite the first fold line.

15. The carton of claim 14, wherein the outer and inner panels are located at opposite edges of the paperboard sheet.

16. The carton of claim 15, wherein the inner spout layer includes flaps folded inwardly from a center panel of the inner spout layer which is laminated to the outer spout layer.

17. The carton of claim 16, wherein one flap has a hold-open notch formed in it and the other flap has a hold-closed notch formed in it.

18. The carton of claim 17, wherein the outer panel defines a finger cut-out adjacent an edge of the spout outer layer opposite the first fold line.

19. The carton of claim 18, wherein side edges of the spout outer layer are defined by nick cuts extending only partially through the outer panel.
20. The carton of claim 3, further comprising a barrier layer covering an outside of the pour spout.